PCT/GB U3, 53425

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 C07K14/47 C12N5/00

A61K38/08

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

 $\begin{array}{ll} \mbox{Minimum documentation searched (classification system followed by classification symbols)} \\ \mbox{IPC 7} & \mbox{C07K} & \mbox{C12N} & \mbox{A61K} \\ \end{array}$

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, SEQUENCE SEARCH, BIOSIS

| EPU-III | ternal, SEQUENCE SEARCH, BIOSIS | | |
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| C. DOCUME | NTS CONSIDERED TO BE RELEVANT | | |
| Category ° | Citation of document, with indication, where appropriate, of the | relevant passages | Relevant to claim No. |
| Х | US 2002/086383 A1 (HUMPHRIES RICHARD KEITH ET AL) 4 July 2002 (2002-07-04) the whole document | | 29 |
| Υ | SLUPSKY C.M. ET AL.: "The HOXB hexapeptide is a prefolded doma Implications for the Pbx1/Hox in PROTEIN SCIENCE, vol. 10, 2001, pages 1244-1253, XP002273610 page 1251 | in: | 1-35 |
| χ Furt | ner documents are listed in the continuation of box C. | Y Patent family members are listed | in annex. |
| *A* document defining the general state of the art which is not considered to be of particular relevance *E* earlier document but published on or after the international filling date *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) *O* document referring to an oral disclosure, use, exhibition or other means *P* document published prior to the international filling date but | | *T* tater document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. *&* document member of the same patent family Date of mailing of the international search report | |
| 16 March 2004 | | 31/03/2004 | |
| Name and | mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016 | Authorized officer Stolz, B | |





| C (Continu | nation) DOCUMENTS CONSIDERED TO BE RELEVANT | PCT/GB 03/05425 |
|------------|---|-----------------------|
| Category ° | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
| | paceage. | Relevant to Cam No. |
| Υ | KNOEPFLER PAULS S ET AL: "The pentapeptide motif of Hox proteins is required for cooperative DNA binding with Pbx1, physically contacts Pbx1, and enhances DNA binding by Pbx1" MOLECULAR AND CELLULAR BIOLOGY, AMERICAN SOCIETY FOR MICROBIOLOGY, WASHINGTON, US, vol. 15, no. 10, October 1995 (1995-10), pages 5811-5819, XP002211727 ISSN: 0270-7306 figure 4 | 1-35 |
| Y | KROSL J. ET AL.: "Cellular proliferation and transformation induced by HOXB4 and HOXB3 proteins invovles cooperation with PBX1" ONCOGENE, vol. 16, 1998, pages 3403-3412, XP002273611 page 3407, column 1, paragraph 1; figure 5 | 1-35 |
| Y | DATABASE BIOSIS 'Online! BIOSCIENCES INFORMATION SERVICE, PHILADELPHIA, PA, US; 16 November 2002 (2002-11-16) KROSL J. ET AL.: "PBX1 Suppresses the Heamtopoietic Stem Cell Growth-Enhancing Effect of HoxB4" retrieved from EPO Database accession no. PREV200300335728 XP002273615 abstract | 1-35 |
| Y | FISCHER P M ET AL: "STRUCTURE-ACTIVITY RELATIONSHIP OF TRUNCATED AND SUBSTITUTED ANALOGUES OF THE INTRACELLULAR DELIVERY VECTOR PENETRATIN" JOURNAL OF PEPTIDE RESEARCH, MUNKSGAARD INTERNATIONAL PUBLISHERS, COPENHAGEN, DK, vol. 55, no. 2, February 2000 (2000-02), pages 163-172, XP000899124 ISSN: 1397-002X the whole document | 10-16 |
| | SHANMUGAM K. ET AL.: "Residues flanking the HOX YPWM Motif Contribute to Cooperative Interactions with PBX1" THE JOURNAL OF BIOLOGICAL CHEMISTRY, vol. 272, no. 30, 25 July 1997 (1997-07-25), pages 19081-19087, XP002273612 page 19086, column 2, paragraph 3 | 1-35 |

Form PCT/ISA/210 (continuation of second sheet) (July 1992)

| | | FCI/GB U3 | 7 05425 | |
|--|--|-----------|-----------------------|--|
| C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT | | | | |
| Category ° | Citation of document, with indication, where appropriate, of the relevant passages | | Relevant to claim No. | |
| А | NEUTEBOOM S.T.C. ET AL.: "The hexapeptide LFPWMR in HoxB-8 is required for cooperative binding with Pbx1 and Pbx2 proteins" PROC. NATL. ACAD. SCI USA, vol. 92, November 1995 (1995-11), pages 9166-9170, XP002273613 the whole document | | | |
| A | OWNES B.M. AND HAWLEY R.G.: "Hox and Non-Hox Homeobox Genes in Leukemic Hematopoiesis" STEM CELLS, vol. 20, no. 5, September 2002 (2002-09), pages 364-379, XP002273614 the whole document | | | |
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FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.1

Although claims 25, 26 and 30 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.

Continuation of Box I.1

Claims Nos.: 25,26,30 (partially)

Rule 39.1(iv) PCT - Method for treatment of the human or animal body by therapy





| Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet) | | | | |
|--|--|--|--|--|
| This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons: | | | | |
| 1. X Claims Nos.: 25,26,30 (partially) because they relate to subject matter not required to be searched by this Authority, namely: | | | | |
| see FURTHER INFORMATION sheet PCT/ISA/210 | | | | |
| Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically: | | | | |
| 3. Claim's Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a). | | | | |
| Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet) | | | | |
| This International Searching Authority found multiple inventions in this international application, as follows: | | | | |
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| As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims. | | | | |
| As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee. | | | | |
| - | | | | |
| 3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.: | | | | |
| | | | | |
| 4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the Invention first mentioned in the claims; it is covered by claims Nos.: | | | | |
| | | | | |
| Remark on Protest | | | | |
| No protest accompanied the payment of additional search fees. | | | | |

PCT/GB U3/05425

| | | | 03/03423 | |
|--|---------------------|----------------------------|------------------|--|
| Patent document cited in search report | Publication date | Patent family member(s) | Publication date | |
| US 2002086383 A | - 0. 0, <u>2002</u> | CA 2337574 A1 | 23-08-2001 | |